

The logo for EOS Space Systems, featuring the letters 'EOS' in a stylized, white, sans-serif font. The letters are bold and have a slight shadow effect. The background is a dark blue gradient with a faint, light blue geometric pattern of lines radiating from a central point on the left side.

EOS

LUNAR RANGING FROM MOUNT STROMLO

B. Greene, C. Smith, Y. Gao, J. Cotter, C. Moore, J. Luck, I Ritchie

EOS Space Systems Pty. Limited, Queanbeyan, Australia

ABSTRACT



- The Mount Stromlo SLR system is co-located with the EOS Space Research Centre [SRC] which has extremely powerful laser tracking capabilities.
- The SLR normally operates with 0.5W of laser power, but in recent months the system has been coupled to an available 50W laser and LLR sessions have been programmed from late May by EOS, using EOS research funds.
- The LLR link should be acceptable with 50W laser power, since the SLR telescope has 100cm high-quality optics and 5 microradian absolute pointing. The accuracy of the experimental configuration will be at the 10 cm level, but this can be later upgraded once target links have been established.
- The initial objective of this experiment is to determine [update] the relative responsiveness of various lunar targets, and establish operational parameters for a long-term lunar capability using millimetre-accurate systems.
- The operational configuration of this system, and any initial results will be presented.

EOS Space Research Centre on Mount Stromlo
Left: 1.8-metre Keck telescope in ICESTORM dome
Centre: 1.0-metre SLR telescope in TYPHOON dome.
Their System Reference Points are 17 metres apart



27 May 2004

LUNAR PREDICTIONS

From MITEPH.RAW and *latest* USNO Mark3.out
To separate files per target



Filename: APO14_040500000000_HELL.TXT from 20 May to 8 June 2004 at
60 second intervals, continuous even when Moon is below horizon

Example: From HELL and back

APO15	mm	dd	hh	mm	ss	UTC	Az(rad)	El(rad)	Range(sec)	Site: HELL
2004	5	20	0	0	0		0.6552376	0.3366067	2.680234001748	
2004	5	20	0	1	0		0.6517700	0.3386828	2.680156032623	
2004	5	20	0	2	0		0.6482934	0.3407493	2.680078505954	
2004	5	20	0	3	0		0.6448078	0.3428061	2.680001423251	
2004	5	20	0	4	0		0.6413132	0.3448534	2.679924786016	
2004	5	20	0	5	0		0.6378095	0.3468909	2.679848595746	
2004	5	20	0	6	0		0.6342968	0.3489187	2.679772853869	
2004	5	20	0	7	0		0.6307751	0.3509367	2.679697561980	
2004	5	20	0	8	0		0.6272443	0.3529448	2.679622721490	
2004	5	20	0	9	0		0.6237045	0.3549431	2.679548333864	
2004	5	20	0	10	0		0.6201556	0.3569313	2.679474400526	
2004	5	20	0	11	0		0.6165976	0.3589096	2.679400922977	
2004	5	20	0	12	0		0.6130307	0.3608778	2.679327902629	
2004	5	20	0	13	0		0.6094546	0.3628359	2.679255340909	
2004	5	20	0	14	0		0.6058695	0.3647838	2.679183239212	
2004	5	20	0	15	0		0.6022753	0.3667215	2.679111599003	
2004	5	20	0	16	0		0.5986721	0.3686490	2.679040421660	

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Are Your PREDICTIONS being Ruined by Interpolation Errors?



Please ensure that your interpolator is adequate !!

